Amendment and Response Applicants: Shin et al.

Serial No. 09/852,988

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REMARKS

Claims 1 to 9 and 34 to 36 were cancelled by the Amendment filed January 30. 2003. Claims 10, 20, 25, 37 and 41 are currently amended. Claims 11 to 19, 21 to 24, 26 to 33, and 38 to 40 are original pending claims. Claims 42 to 46 are pending claims added by the Amendment filed January 30, 2003. Claims 47 to 55 are newly presented by this Amendment.

Claim rejections under 35 U.S.C. § 102

Rejection Based on U.S. Patent No. 5,591,222 (Susawa et al.).

Claims 20 to 24 and 41 to 46 are rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,591,222 (hereinafter "Susawa"). The Examiner takes the position that Susawa discloses a method of loading a stent on a delivery catheter comprising providing a stent having a first diameter in a radially contracted position and a second diameter in a radially expanded position (referencing Susawa, Abstract; col. 3, lines 1 to 5 and Fig. 1). The Examiner contends that the method further comprises compressing at least a portion of the stent from a pre-compression diameter to a post-compression diameter, the post-compression diameter being less than the diameter of the distal portion of the stent (referencing Susawa, Abstract, Figs. 1 to 3 and claim 1), and mounting the stent in the post-compression diameter onto the distal portion of the delivery catheter without further compression the stent (referencing Susawa, Abstract; col. 12, lines 8 to 15; col. 3, lines 1 to 5 and 22 to 24; col. 4, lines 30 to 43 and claims).

Rejection of Claims 20 to 24

The Examiner's rejection is respectfully traversed to the extent it is applied to claims 20 to 24, as amended. It is fundamental that in order for a reference to anticipate it must disclose or teach all limitations of the claim. The Examiner's discussion of Susawa fails to consider the limitation in claim 20, which requires that the stent be mounted onto the delivery catheter in its radially contracted position such that the stent is expanded to a

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delivery position, the diameter of the stent in its delivery position being greater than in its radially contracted position.

Susawa does not describe or suggest, alone or combined with other record references, a procedure for mounting a stent onto a catheter, such that the diameter of the stent is expanded from a radially contracted position having a first diameter to a delivery position having a delivery diameter which is greater than the first diameter as required by claims 20 to 24. Susawa states (col. 2, lines 13 to 15) "...the stent is attached to a balloon-tipped catheter in a compression condition." The only time that the stent of Susawa is expanded is when the delivery catheter is inflated *in situ* (Susawa, col. 3, lines 44 to 46; col. 4, lines 9 to 14 and 41 to 46). Therefore, Susawa can not anticipate claim 20 or claims 21 to 24 which depend therefrom.

Susawa further provides no teaching or suggestion, alone or combined with other references of record, of the relative sizes of the first and third diameters, required by claims 22 and 23. Susawa does not teach or suggest, by itself or combined with other record references, that mounting the stent in the radially contracted position onto the delivery catheter radially contracts the delivery catheter, as required by claim 24.

Accordingly, the rejection claims 20 to 24 under 35 U.S.C. § 102(b) as anticipated by Susawa is unsupportable and must be withdrawn.

Rejection of Claims 41 to 46

By this Amendment, claim 41, last sub-paragraph, is amended to recite "mounting the stent in the post-compression diameter onto the distal portion of the delivery catheter" is accomplished so that the stent is expanded to a delivery position.

Thus, claims 41 to 46 now all include this limitation. With this amendment, claims 41 to 46 are all patentably distinguished from Susawa, for at least the reasons set forth above in the comments regarding claims 20 to 24, and those comments are repeated

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here in their entirety as equally pertinent. Susawa does not describe or suggest, alone or in combination with any other references of record, the method of claims 41 to 46.

Accordingly, with the present amendment of claim 41, the rejection claims 41 to 46 under 35 U.S.C. § 102(b) as anticipated by Susawa is overcome and must be withdrawn.

Rejection Based on DE 19532288 (Solzbach).

Claims 10 to 33 and 37 to 46 are rejected under 35 U.S.C. § 102(b) as anticipated by DE 19532288 (Solzbach). The Examiner takes the position that Figs. 1 to 7 of Solzbach discloses a method of loading a stent on a delivery catheter meeting the claimed steps and structural limitations set forth in claims 10 to 33 and 37 to 46. This rejection is respectfully traversed to the extent it is applied to the claims, as amended.

Accompanying this Amendment and Response is an English language translation of DE 195 32 288 A1. Reference to this translation will be made in the following Remarks. Reference to page and line numbering herein is to the English translation.

Rejection of Claims 10 to 19, 25 to 33 and 37 to 40

Claims 10, 25, and 37, have been amended to recite "... sliding the stent in the radially contracted position over <u>and past</u> the conical sheath onto the delivery catheter. Support for this amendment is found in the original disclosure at page 6, lines 3 to 17; page 7, lines 4 to 15; page 7, line 28; page 8, line 6; page 8, lines 15 to 16; page 14, lines 3 to 16; and Fig. 4. Thus, claims 10 to 19, 25 to 33, and 37 to 40 now all include this limitation. Solzbach does not disclose nor teach this limitation.

Solzbach discloses a sheath used to apply a stent over the balloon of a dilation catheter. However Solzbach does not teach the methods of mounting or loading a stent on a delivery catheter as required by these claims. As a matter of fact, the sheath disclosed in Solzbach can not be used in the manner specified in these claims. Solzbach's sheath (1) must extend along the length of the balloon (6) to perform its function (at page

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5, lines 20 to 25). Specifically, Solzbach teaches that the rigid portion (2) of the sheath (1) presses the balloon (6) together so that the flexible portion (3) and the stent (7) can simultaneously expand when the stent and the sheath are together slid over the balloon (6) at no time during the procedure disclosed in Solzbach is the stent ever slid over and past the sheath. If the stent were slid past the sheath it would result in the stent being improperly positioned and/or expanded to an extent where its position on the catheter could not be maintained.

Accordingly, with the entry of the present amendments to claims 10, 25, and 37, the rejection claims 10 to 19, 25 to 33, and 37 to 40 under 35 U.S.C. § 102(b) as anticipated by Solzbach are overcome. Indication of the allowance of claims 10 to 19, 25 to 33 and 37 to 40 as amended is solicited to be forthcoming.

Rejection of Claims 20 to 24 and 41 to 46

Claims 20 and 41 have been amended to recite that there is sliding movement between the stent and delivery catheter while "...the interior surface of the stent and the exterior surface of the delivery catheter are in contact."

Solzbach has been discussed above and that discussion is incorporated herein. Solzbach does not teach or suggest, either alone or in combination with other references of record, any method of mounting a stent onto a delivery catheter by sliding one with respect to the other while maintaining contact between an interior surface of the stent and an exterior surface of the delivery catheter. On the contrary Solzbach requires use of an intermediate sheath which is disposed between the stent and catheter at all times that the stent is being positioned relative to the catheter.

Solzbach further provides no teaching or suggestion, alone or combined with other references of record, of the relative sizes of the first and third diameters required by claims 22 and 23.

Accordingly, the entry of the present amendment to claims 20 and 41 overcomes the rejection of those claims under 35 U.S.C. § 102(b) as anticipated by Solzbach and the

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rejection of claims 21 to 24 and 42 to 46 which depend from claims 20 and 41, respectively, and add further limitations constituting unique combinations. Allowance of claims 20 to 24 and 41 to 46 as amended is solicited.

Conclusion

In view of the entry of the present amendments to the claims and Applicants' remarks, all of the claims of record are seen to be in condition for allowance.

Reconsideration, withdrawal of the rejections, and passage of the case to issue is respectfully requested.

If any additional fees are due in connection with the filing of this paper, please charge the fees to our Deposit Account No. 16-2312. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our deposit account.

Date:

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